## REMARKS

Claims 1, 2, 5-13, 16-24, 42-45 and 48-52 are all the claims pending in the application.

### I. Objection to the Specification

The Examiner has objected to the title of the invention as not being descriptive. In order to overcome this objection, Applicants note that the title has been amended herein in the manner suggested by the Examiner. Accordingly, Applicants kindly request that the objection be reconsidered and withdrawn.

### II. Double Patenting

Claims 1, 5-9, 12, 13, 16, 17, 19, 21-24, 42-45, 51 and 52 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 7, 9, 14-20, 24, 25 and 28 of copending U.S. Application No. 10/524,026 (hereafter "the '026 application"). Applicants respectfully traverse this rejection on the following basis.

Regarding the above-noted rejection, Applicants note that the Examiner has indicated on page 4 of the Office Action that the "subject matter claimed in the instant application is fully disclosed in the referenced copending application…" (emphasis added). With respect to this comment by the Examiner, Applicants point out that a double patenting rejection is based on a comparison between the claims of the referenced copending application and the claims of the instant application, and that the disclosure of the copending application cannot be used as prior art. For example, Applicants note that MPEP 804(II)(B)(1) states that when "considering whether the invention defined in a claim of an application would have been an obvious variation of the invention defined in the claim of a patent, the disclosure of the patent may not be used as prior art" (emphasis added).

Taking the foregoing into account, Applicants note that the Examiner has not performed the proper analysis in formulating the double patenting rejection, and therefore, that the rejection must be withdrawn. In particular, Applicants note that the Examiner has relied on the disclosure of the '026 application in formulating the rejection instead of the claims of the '026 application.

For example, the Examiner states on page 4 of the Office Action that "an access point serving as a host device for the master station" reads on the claimed main station; and the "access point … converts an Ethernet signal received from the Ethernet network… into a wireless LAN signal and sends out the wireless LAN signal to the master station", which reads on the claimed switch. The Examiner further states that the "master station converts a wireless LAN signal outputted from the access point into an optical signal and sends out the optical signal to the optical multiplexing/demultiplexing section", and that "the master station converts an optical signal outputted from the optical multiplexing/demultiplexing section into a wireless LAN signal and sends out the wireless LAN signal to the access point (see Office Action at page 4).

Regarding the above-noted quoted language that the Examiner has relied upon, Applicants note that this language is not recited in the claims of the '026 application, but is merely disclosed in the '026 application.

As explained above, the disclosure of the '026 application cannot be the basis for a double patenting rejection. Accordingly, it is clear that the double patenting rejection set forth by the Examiner is improper, and must be withdrawn. For the Examiner's reference, Applicants note that MPEP 804(II)(B)(1) states when making an obviousness-type double patenting rejection, the Examiner should make clear: "(A) The differences between the inventions defined by the conflicting claims - a claim in the patent compared to a claim in the application; and (B) The reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim at issue is anticipated by, or would have been an obvious variation of the invention defined in a claim in the patent (emphasis added)".

Using the proper analysis as explained above, Applicants respectfully submit that the claims of the instant application are clearly not rendered obvious by the claims of the '026 application. Therefore, Applicants request that the above-noted rejection be withdrawn.

Furthermore, with respect to the Examiner's reliance on *In re Schneller* on page 5 of the Office Action in making the double patenting rejection, Applicants point out to the Examiner that MPEP § 804(II)(B)(2) discusses non-statutory double patenting rejections based on *In re Schneller*. In particular, Applicants note that this section of the MPEP clearly indicates that "[n]on-statutory double patenting rejections based on *Schneller* will be rare", and that the

"Technology Center (TC) Director must approve any nonstatutory double patenting rejections based on *Schneller*" (emphasis added).

In this regard, Applicants note that there is no evidence in the Office Action that approval of the TC Director has been obtained in making the above-noted double patenting rejection based on *In re Schneller*. Accordingly, it is requested that the provisional non-statutory double patenting rejection based on *In re Schneller* be withdrawn.

## III. Claim Rejections under 35 U.S.C. § 103(a)

Claims 1, 2, 5-13, 16-24, 42-45 and 48-52 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Schwartz et al. (US 6,801,767) in view of Aburakawa et al. (U.S. 2003/0007214). Applicants respectfully traverse this rejection on the following basis.

Claim 1 recites the feature of a plurality of sub-stations for forming respective wireless communication areas individually in the local area, and performing wireless communication with the wireless communication terminals in the respective corresponding wireless communication areas. In the Office Action, the Examiner has taken the position that Schwartz discloses such a feature (see Office Action at page 6). Applicants respectfully disagree.

In particular, regarding Schwartz, Applicants note that this reference discloses a communication system that includes a plurality of wireless communication networks 120, a main unit 101, expansion units 105-106, and a plurality of remote units 102-104 (see Fig. 2). As explained in Schwartz, the expansion unit 105 is connected to the remote units 103 and 104 via a first secondary-optical-fiber 108 and a second secondary-optical-fiber 109, respectively (see Fig. 2 and col. 9, lines 43-48).

In the Office Action, the Examiner has taken the position that the expansion units 105-106 of Schwartz correspond to the "sub-stations" as claimed, and that the remote units 103-104 corresponds to the "wireless communication terminals" as claimed (see Office Action at page 6).

Regarding such a position, as described above, in Schwartz, the expansion units 105-106 are connected to the remote units 103-104 via optical fibers 108, 109 (see col. 9, lines 43-48). As such, Applicants respectfully submit that Schwartz clearly does not disclose the above-noted feature recited in claim 1 of a plurality of sub-stations for forming respective wireless communication areas individually in the local area, and performing wireless communication with

the wireless communication terminals in the respective corresponding wireless communication areas. Accordingly, Applicants submit that the Examiner's rejection of claim 1 should be withdrawn.

In addition, Applicants note that claim 1 recites the feature of a plurality of access points, connected to the main station via a wireless transmission path, for converting signals to be input from an outside of the local area to an inside of the local area to a signal form for use in the local area, and converting signals to be output from the inside of the local area to the outside of the local area to a signal form for use in the outside of the local area. In the Office Action, the Examiner has taken the position that Schwartz discloses such a feature (see Office Action at page 6). Applicants respectfully disagree.

First, Applicants note that Schwartz discloses that the wireless communication networks 120 are connected to the main unit 101 by an RF-signal transfer means 121, such as one or more coaxial RF-cables (see col. 9, lines 32-36).

Second, regarding the data transfer between the wireless communication networks 120 and the main unit 101, Schwartz discloses that data transfer from the wireless communication networks 120 to the main unit 101 (i.e., downlink operation) involves data having different frequency bands being transmitted from the wireless communication networks 120 to the main unit 101 via the RF-signal transfer means 121 (see col. 10, lines 14-19), and that data transfer from the main unit 101 to the wireless communication networks 120 (i.e., uplink operation) includes the main unit 101 converting signals to uplink RF-parts, combining the RF-parts into a combined uplink RF signal, and then transmitting the combined uplink RF signal to the wireless communication networks 120 (see col. 12, lines 31-39).

In the Office Action, the Examiner has taken the position that the wireless communication networks 120 of Schwartz correspond to the "access points" as claimed, and that the main unit 101 of Schwartz corresponds to the "main station" as claimed (see Office Action at page 6).

Regarding such a position, as described above, in Schwartz, the wireless communication networks 120 are connected to the main unit 101 by an RF-signal transfer means 121, such as one or more coaxial RF-cables. As such, Applicants submit that Schwartz does not disclose that

a plurality of access points are connected to the main station via a wireless transmission path, as recited in claim 1.

Further, as described above, when transferring data between the wireless communication networks 120 and the main unit 101, while the wireless communication networks 120 transfer data to the main unit at different frequencies, Applicants respectfully submit that the only conversion of data that takes place is at the main unit 101 (e.g., see col. 12, lines 31-39).

Thus, as the wireless communication networks do not perform a conversion of data, but instead, merely transfer data, contrary to the position of the Examiner, Applicants respectfully submit that Schwartz does not disclose the above-noted feature of access points for converting signals to be input from an outside of the local area to an inside of the local area to a signal form for use in the local area, and converting signals to be output from the inside of the local area to the outside of the local area to a signal form for use in the outside of the local area, as recited in claim 1. Accordingly, Applicants submit that the Examiner's rejection of claim 1 should be withdrawn.

In addition, Applicants note that claim 1 recites that the main station includes a managing section operable to determine one of the plurality of access points to which a first one of the wireless communication terminals is accessible. In the Office Action, the Examiner has taken the position that Schwartz discloses such a feature (see Office Action at page 7).

In this regard, as noted above, the Examiner has taken the position that the main unit 101 of Schwartz corresponds to the claimed "main station", and that the wireless communication networks 120 correspond to the claimed "access points". Thus, the Examiner is taking the position that the main unit 101 determines one of the plurality of wireless communication networks 120 to which a first one of the remote units is accessible. Applicants respectfully disagree with such a position.

In particular, as described above, Applicants note that while the main unit 101 of Schwartz functions so as to convert uplink optical signals to uplink RF-parts, combine the uplink RF-parts into a combined uplink RF signal, and then transmit the combined uplink RF signal to the wireless communication networks 120 via the RF-signal transfer means 121 (see col. col. 12, lines 31-39), that there is no disclosure in Schwartz of the main unit 101 determining

one of the plurality of wireless communication networks 120 to which one of the remote units is accessible.

As such, Applicants respectfully submit that Schwartz does not disclose the above-noted feature recited in claim 1 which indicates that the main station includes a managing section operable to determine one of the plurality of access points to which a first one of the wireless communication terminals is accessible. Accordingly, Applicants submit that the rejection should be withdrawn.

For the reasons set forth above, Applicants respectfully submit that, contrary to the position taken by the Examiner in the Office Action, Schwartz does not disclose, suggest or otherwise render obvious at least the above-noted features recited in claim 1. Accordingly, Applicants submit that the rejection of claim 1 should be withdrawn.

Regarding the Aburakawa reference, Applicants note that the Examiner has taken the position that Schwartz discloses all of the features recited in claim 1 (see Office Action at pages 6-7). As such, it is not clear why the Examiner has included the Aburakawa reference in the rejection. In this regard, Applicants note that the Examiner has simply made a general statement regarding the disclosure of the Aburakawa reference (e.g., see page 7 of the Office Action), and has then stated that it would have been obvious to combine Schwartz with Aburakawa, without relying on the Aburakawa reference for the teaching of any specific feature recited in the claims.

In this regard, Applicants note that regardless of the Examiner's reasoning for applying the Aburakawa reference, Applicants respectfully submit that the Aburakawa reference does not cure the above-noted deficiencies of Schwartz. Accordingly, Applicants submit that claim 1 is patentable over the cited prior art references, an indication of which is kindly requested.

Claims 2, 5-13 and 16-23 depend from claim 1 and are therefore considered patentable at least by virtue of their dependency.

Regarding claim 24, Applicants note that this claim is drawn to a system for enabling a plurality of wireless communication terminals present in a local area to communicate with a network outside the local area, the system comprising: a plurality of sub-stations for forming respective wireless communication areas individually in the local area, and performing wireless communication with the wireless communication terminals in the respective corresponding wireless communication areas; a main station connected to each of the plurality of sub-stations

via a wireless transmission path; and plurality of access points, connected to the main station via a wireless transmission path, for converting signals to be input from an outside of the local area to an inside of the local area to a signal form for use in the local area, and converting signals to be output from the inside of the local area to the outside of the local area to a signal form for use in the outside of the local area.

For at least similar reasons as discussed above with respect to claim 1, Applicants submit that the combination of Schwartz and Aburakawa does not disclose, suggest or otherwise render obvious such features.

Further, Applicants note that claim 24 also recites that the main station comprises a multiplexing section operable to frequency-multiplex the signals converted by the plurality of access points to be input to the local area, and a selecting section operable to select and output the signals to be input to the local area, which have been multiplexed by the multiplexing section, to all of the sub-stations. Regarding such a feature, Applicants respectfully submit that the main unit 101 of Schwartz does not frequency-multiplex signals converted by a plurality of wireless communication networks to be input to the local area, and select and output the signals to be input to the local area, which have been multiplexed by the multiplexing section, to all of the expansion units 105,106. Accordingly, Applicants submit that the rejection of claim 24 should be withdrawn.

Regarding claim 42, Applicants note that this claim is drawn to a main station, connected to a plurality of sub-stations via an optical fiber transmission path for forming respective wireless communication areas in a local area and performing wireless communication with a plurality of wireless communication terminals in the respective wireless communication areas, and a plurality of access points for outputting signals to be input from an outside of the local area to an inside of the local area, the main station comprising a managing section operable to determine one of the plurality of access points to which a first one of the wireless communication terminals is accessible, and a selecting section operable to select and output the signals to be input to the local area which have been received by the access points.

For at least similar reasons as discussed above with respect to claim 1, Applicants submit that the combination of Schwartz and Aburakawa does not disclose, suggest or otherwise render

obvious such features. Accordingly, Applicants submit that claim 42 is patentable over the cited prior art, an indication of which is kindly requested.

Regarding claim 43, Applicants note that this claim is drawn to a main station, connected to a plurality of sub-stations via an optical fiber transmission path for forming respective wireless communication areas in a local area and performing wireless communication with a plurality of wireless communication terminals in the respective wireless communication areas, and a plurality of access points for outputting signals to be input from an outside of the local area to an inside of the local area, the main station comprising a signal receiving section operable to receive the signals to be input to the local area which have been received by the access points; a multiplexing section operable to frequency-multiplex the signals to be input to the local area, the signals being received by the signal receiving section; and a selecting section operable to select and output the signals to be input to the local area which have been multiplexed by the multiplexing section, to all of the sub-stations.

For at least similar reasons as discussed above with respect to claim 24, Applicants submit that the combination of Schwartz and Aburakawa does not disclose, suggest or otherwise render obvious such features. Accordingly, Applicants submit that claim 43 is patentable over the cited prior art, an indication of which is kindly requested.

Regarding claim 44, Applicants note that this claim is drawn to a sub-station for use in a wireless communication system, wherein the sub-station forms a wireless communication area in a local area, and communicates with a wireless communication terminal present in the wireless communication area formed by the sub-station, wherein in the wireless communication system, signals to be input from an outside of the local area to an inside of the local area are converted by a plurality of access relay apparatuses to a signal form for use in the local area, and one of the signals is selected and output to the sub-station.

For at least similar as discussed above with respect to claim 1, Applicants respectfully submit that the combination of Schwartz and Aburakawa does not disclose or suggest the features of a sub-station that forms a wireless communication area in a local area, and communicates with a wireless communication terminal present in the wireless communication area formed by the sub-station, wherein in the wireless communication system, signals to be input from an outside of the local area to an inside of the local area are converted by a plurality

of access relay apparatuses to a signal form for use in the local area, and one of the signals is selected and output to the sub-station.

Accordingly, Applicants submit that claim 44 is patentable over the cited prior art, an indication of which is kindly requested. Claims 45 and 48-50 depend from claim 44 and are therefore considered patentable at least by virtue of their dependency.

Regarding claim 51, Applicants note that this claim recites that in a system comprising a plurality of sub-stations for forming respective wireless communication areas individually in the local area, and performing wireless communication with a plurality of wireless communication terminals in the respective corresponding wireless communication areas, a plurality of access points for converting signals to be input from an outside of the local area to an inside of the local area to a signal form for use in the local area, and converting signals to be output from the inside of the local area to the outside of the local area to a signal form for use in the outside of the local area, and a main station provided between the sub-stations and the access points, a method performed by the main station comprises determining one of the plurality of access points to which a first one of the wireless communication terminals is accessible; and selecting and outputting one of the signals to be input from the outside of the local area, whose form is converted in the one of the plurality of access points having been determined, and which is input to the local area, to the first wireless communication terminal via a corresponding one of the sub-stations.

For at least similar reasons as discussed above with respect to claim 1, Applicants submit that the combination of Schwartz and Aburakawa does not disclose, suggest or otherwise render obvious such features. Accordingly, Applicants submit that claim 51 is patentable over the cited prior art, an indication of which is kindly requested.

Regarding claim 52, Applicants note that this claim recites that in a system comprising a plurality of sub-stations for forming respective wireless communication areas individually in the local area, and performing wireless communication with a plurality of wireless communication terminals in the respective corresponding wireless communication areas, a plurality of access points for converting signals to be input from an outside of the local area to an inside of the local area to a signal form for use in the local area, and converting signals to be output from the inside of the local area to the outside of the local area to a signal form for use in the outside of the local

area, and a main station provided between the sub-stations and the access points, a method performed by the main station comprises frequency-multiplexing the signals converted by the plurality of access points to be input to the local area, and selecting and outputting the signals to be input to the local area which have been multiplexed by the multiplexing section, to all of the sub-stations.

For at least similar reasons as discussed above with respect to claim 24, Applicants submit that the combination of Schwartz and Aburakawa does not disclose, suggest or otherwise render obvious such features. Accordingly, Applicants submit that claim 52 is patentable over the cited prior art, an indication of which is kindly requested.

## III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Kuniaki UTSUMI et al.

/Kenneth W. Fields/
2008.05.29 18:07:04 -04'00'

By: _____

Kenneth W. Fields
Registration No. 52,430
Attorney for Applicants

KWF/krg
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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